



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/649,094

08/26/2003

Kee Siang Goh

70030427-1

4946

22878

7590

10/20/2005

AGILENT TECHNOLOGIES, INC.

INTELLECTUAL PROPERTY ADMINISTRATION, LEGAL DEPT.

P.O. BOX 7599

M/S DL429

LOVELAND, CO 80537-0599

EXAMINER

TRAN, TAN,N

ART UNIT

PAPER NUMBER

2826

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

216

Office Action Summary	Application No.	Applicant(s)	
	10/649,094	GOH ET AL.	
	Examiner	Art Unit	
	Tan N. Tran	2826	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on amendment filed on 08/04/05.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) 3-9, 12 and 14-21 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 10, 11, 13 and 22 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Minhloan Tran
Minhloan Tran
Primary Examiner
Art Unit 2826

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Information Disclosure Statement

1. If applicant is aware of any relevant prior art, he/she requested to cite it on form PTO-1449 in accordance with the guidelines set forth in M.P.E.P.

609.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1,13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pankratov et al. (4,865,029) in view of Tymianski et al. (6,571,482).

With regard to claims 1,13, Pankratov et al. discloses a gradient index element 30 having highest cylindrical refractive index serves as a cylindrical refractive index profile in which the refractive index varies radially and substantially constant axially, the GRIN element 30 comprising a first end surface (A) opposite a second end surface (B) and characterized by a length (L) and pitch (P), the light from the second end surface (B) in a radiation pattern dependent on the length (L) and pitch (P). (Note attachment #1, lines 47-51, and 55-60, column 7, figs. 4A,4B,5A,5B of Pankratov et al.). It is inherent that the light from the second end surface

(B) in a radiation pattern dependent on the length to pitch ratio because the refractive index varies radially in order to increase efficiency of emitting light.

Pankratov et al. does not disclose the GRIN element arranged with the first end surface adjacent the light emitting device.

However, Tymianski et al. discloses the GRIN element 3 arranged with the first end surface adjacent the light emitting device 1. (Note lines 50-58, column 1; lines 51-54, column 3, fig. 3 of Tymianski et al.).

Therefore, it would have been obvious to one of ordinary skill in the art to form the Pankratov et al.'s device having the GRIN element arranged with the first end surface adjacent the light emitting device such as taught by Tymianski et al. in order to maximize the focused light beams.

It inherent that a light emitting device 1 of Tymianski et al. is to be as a semiconductor light-emitting die in order to emit the light. Note, lines 1,2, column 11 of Du et al. (6,945,672), is cited to support for the inherent position.

With regard to claim 2, Tymianski et al. and Pankratov et al. disclose all the claimed subject matter except for the length to pitch ratio is equal to one fourth and the Grin element emits the light in a collimated beam. However, it would have been obvious to one of ordinary skill in the art to form the length to pitch ratio is equal to one fourth and the Grin element emits the light in a collimated beam in order to maximize the focused light beams. Note, lines 1,2, column 14 Walt et al. (5,814,524) and lines 4-11, paragraph 0018, fig. 21C of Iton et al. (2003/0081897), are cited to support for the well know position.

Claims 10,22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pankratov et al. (4,865,029) in view of Tymianski et al. (6,571,482) and further in view of Wang et al. (2002/0122638).

Tymianski et al. and Pankratov et al. do not disclose the light emitting device additionally comprises a header; the header comprises a cavity extending thereinto; the light source is mounted in the cavity defined in the header; and the GRIN element is engaged with the cavity.

However, Wang et al. discloses a support member 14 serves as a header wherein the support member 14 comprises a cavity extending thereinto; the light source 12 is mounted in the cavity defined in the support member 14; and the GRIN element 16 is engaged with the cavity. (Note fig. 1 of Wang et al.).

Therefore, it would have been obvious to one of ordinary skill in the art to form the Tymianski et al. and Pankratov et al.'s device having a support member serves as a header wherein the support member comprises a cavity extending thereinto; the light source is mounted in the cavity defined in the support member; and the GRIN element is engaged with the cavity such as taught by Wang et al. in order to support the light emitting device.

Applicant's claim 10 does not distinguish over Tymianski et al. and Pankratov et al. and Wang et al. references regardless of the process used to form the GRIN element is engaged with the cavity because only the final product is relevant, not the process of making such as "push fit".

Note that a "product by process" claim is directed to the product per se, no matter how actually made, *In re Hirao*, 190 USPQ 15 at 17 (footnote 3). See also *In re Brown*, 173 USPQ 685; *In re Luck*, 177 USPQ 523; *In re Wertheim*, 191 USPQ 90 (209 USPQ 554 does not deal with this

Art Unit: 2826

issue); In re Fitzgerald, 205 USPQ 594, 596 (CCPA); In re Marosi et al., 218 USPQ 289 (CAFC); and most recently, In re Thorpe et al., 227 USPQ 964 (CAFC, 1985) all of which make it clear that it is the final product per se which must be determined in a "product by process" claim, and not the patentability of the process, and that, as here, an old or obvious product produced by a new method is not patentable as a product, whether claimed in "product by process" claims or not. Note that Applicant has burden of proof in such cases, as the above case law makes clear.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Pankratov et al. (4,865,029) in view of Tymianski et al. (6,571,482) and Wang et al. (2002/0122638) and further in view of Hamm (6,263,133).

Tymianski et al., Pankratov et al. and Wang et al. do not disclose an index matching material located in the cavity.

However, Hamm discloses an index matching material 102 located in the cavity and between GRIN element 96 and optical fiber 104. (Note fig. 4 of Hamm).

Therefore, it would have been obvious to one of ordinary skill in the art to form the Tymianski et al., Pankratov et al. and Wang et al.'s device having an index matching material located in the cavity such as taught by Hamm in order to reduce back reflection from optical fiber face.

Response to Amendment

3. Applicant's arguments with respect to claims 1,2,10,11,13,22 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a). A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communication from the examiner should be directed to Tan Tran whose telephone number is (571) 272-1923. The examiner can normally be reached on M-F 8:30AM-5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nathan Flynn can be reached on (571) 272-1915. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for after final communications.

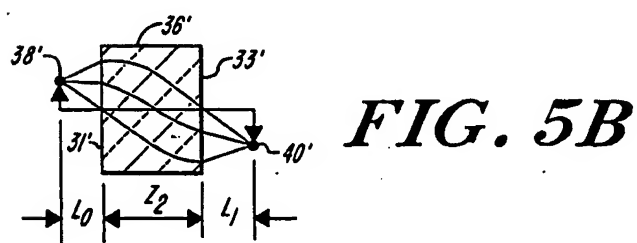
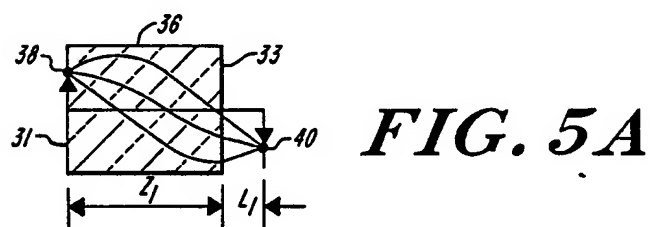
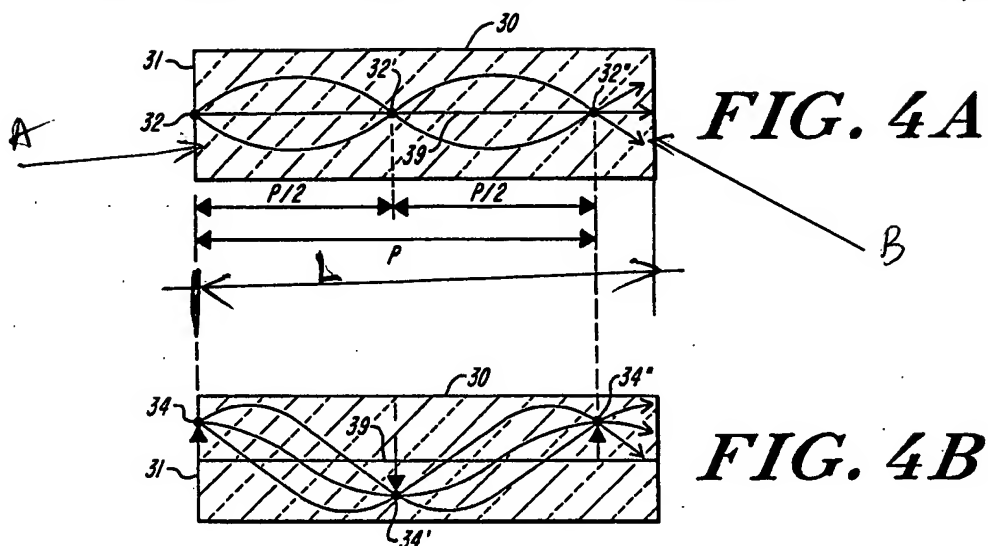
Application/Control Number: 10/649,094
Art Unit: 2826

Page 7

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

TT

Sep 2005



Attachment #1